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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/690,993

Filing Date: October 17, 2000

Appellant(s): KLEIDER ET AL.

**MAILED**

JAN 22 2008

**GROUP 2800**

Lawrence J. Chapa  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed on October 30, 2007 appealing from the  
Office action mailed January 12, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polley et al. (US 6,363,109) in view of Yamano et al. (US 6,445,731).

- With regard claim 12, Polley et al. discloses an orthogonal frequency-division multiplex (OFDM) communication system utilizing a plurality of subchannels, comprising:

producing a modulation profile of said wideband channel, wherein said modulation profile is responsive to a signal-to-noise ratio (SNR) for each subchannel in said plurality of subchannels within said wideband channel (column 7, line 53-column 8, line 5);

transmitting OFDM data in response to said modulation profile (column 7, line 53-column 8, line 5 and claim 1); and

wherein said transmitting activity transmits said OFDM data over the plurality of subchannels (column 7 lines 63-67, where the plurality of subchannels

are 33-36), from which one user channel is formed and concurrently supported (Fig.2 element 100, receiver, where the receiver 100 receives OFDM data through channel 76 that is considered as a user channel).

Polley et al. discloses all of the subject matter as described in the above paragraph except for specifically teaching from which more than one user channel is formed and concurrently supported.

However, Yamano et al. teaches that the transmitting activity (Fig.7 element 1004 from center office and column 5 lines 12-25 and column 19 lines 1-15) transmits said OFDM data to more than one user channel is formed and concurrently supported (Fig.7 elements 1001-1003 at subscriber residence and column 5 lines 12-25 and column 19 lines 1-15) in order to reduce the number of receiver circuits required to handle information (column 5 lines 26-30) so that the interference between them can be reduced.

Column 19, lines 1-15, of Yamano's reference teaches a multi-drop configuration that multiple modems are connected to the same communication channel or a single telephone line. Column 19, lines 22-38, Yamano further teaches that CSMA/CD is used where each transmitter circuit listens to the communication channel and CSMA is commonly used in the Ethernet field, where all communications happen on the same wire and any information sent by one computer is received by all, even if that information is intended for just one destination. It is clear that Yamano teaches that more than one user channel is formed and concurrently supported.

B. Furthermore, column 22, lines 41-63, Yamano teaches an efficient multi-cast transmission. Multi-cast is the delivery of information to a group of destinations simultaneously using the most efficient strategy to deliver the messages over each link.

It is clear that Yamano teaches a multi-cast transmission scheme that the data packet 903 (Fig.10) is simultaneously multi-cast on telephone lines 501-505 (Fig.9 and 10) using a single one of ISP resource 553 (Fig.9 and10) (column 22, lines 49-51). That is, there are more than one telephone lines (user channels), 501-505, which are established and supported to receive the data packet 903 from the information source, ISP, 553.

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the system structure as taught by Yamano et al. in which the transmitting activity transmits said OFDM data to more than one user channel is formed and concurrently supported, into Polley's OFDM communication system structure in order to reduce the number of receiver circuits required to handle information so that the interference between them can be reduced.

- With regarding claim 13, Polley et al. further discloses wherein each of the user channels comprises at least one of said subchannels (column 4 lines 11-18).

#### **(10) Response to Argument**

##### **Claim Rejections under 35 USC§ 102(a)**

Claims 12 and 13

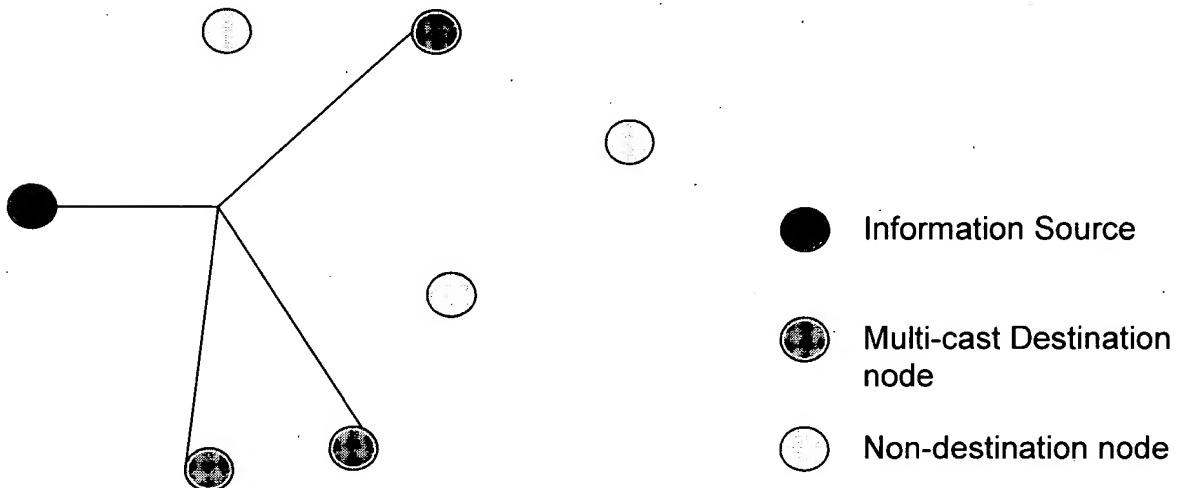
**1. Applicant's argument** – “More specifically, contrary to the assertions of the Examiner, the various combinations of references, fails to teach or suggest “wherein said transmitting activity transmits said OFDM data over the plurality of subchannels, from which more than one user channel is formed and concurrently supported” (claim 12). … the Examiner refers to FIG. 7; col. 5, lines 12-25; and col. 19, lines 1-15. The portion of the specification corresponding to col. 5, lines 12-25 relates to the multiplexing of multiple transmitters to a limited number of receiver circuits, while the portion of the specification corresponding to FIG. 7, and col. 19, lines 1-15, correspond to a multi-drop operation. However, neither of these two examples make known or obvious the corresponding claimed feature, where more than one user channel is formed from the plurality of subchannels and are concurrently supported. …” as recited in page 4-5 of the Appeal Brief.

**Examiner's Response –**

A. Column 19, lines 1-15, of Yamano's reference teaches a multi-drop configuration that multiple modems are connected to the same communication channel or a single telephone line. Column 19, lines 22-38, Yamano further teaches that CSMA/CD is used where each transmitter circuit listens to the communication channel and CSMA is commonly used in the Ethernet field, where all communications happen on the same wire and any information sent by one computer is received by all, even if that information is intended for just one

destination. It is clear that Yamano teaches that more than one user channel is formed and concurrently supported.

B. Furthermore, column 22, lines 41-63, Yamano teaches an efficient multi-cast transmission. Multi-cast is the delivery of information to a group of destinations simultaneously using the most efficient strategy to deliver the messages over each link. The multi-cast connection is shown as following.



Multi-cast Connection in a Network

It is clear that Yamano teaches a multi-cast transmission scheme that the data packet 903 (Fig.10) is simultaneously multi-cast on telephone lines 501-505 (Fig.9 and 10) using a single one of ISP resource 553 (Fig.9 and10) (column 22, lines 49-51). That is, there are more than one telephone lines (user channels), 501-505, which are established and supported to receive the data packet 903 from the information source, ISP, 553.

For the explanation as described in the above paragraph, it is clear that Yamano teaches the limitation of "more than one user channel is formed and concurrently supported." as recited in claims 12 and 13.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Patent Examiner  
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TW *TW*

January 18, 2008

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